

Extended Producer Responsibility for Plastic Pollution

San Jose Trash Summit,
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California Trash Map

Stemming the Tide of Plastic Pollution



Negative impacts:

- Entanglement
- Ingestion
- Transport Pollutants
- Transport Exotics
- Economic
- Human Health?

Solutions:

1. Cleanup VERY difficult
2. Source Reduction essential
3. Land-side interventions, e.g. Stormwater management
4. Recycling enhancement
5. Improved monitoring & assessment



Photos: Flickr - Tedxgp2, NOAA, Chris Jordan

Examples of the negative impacts of marine plastic pollution:

A 2012 study by the Convention on Biological Diversity found that 663 marine species have been impacted by marine plastic litter through entanglement and ingestion—a two-thirds increase in species from a similar study in 1998.

One third of adult leatherback sea turtles have ingested plastic.

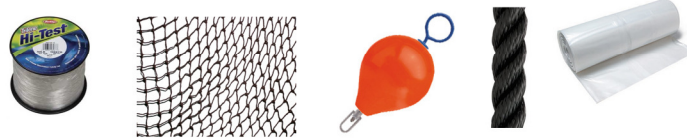
Marine plastic pollution imposes substantial costs on taxpayers and local governments through cleanup efforts and lost tourism revenue. A 2012 report by the US EPA found California's coastal cities and counties spend about \$420 million each year to combat litter and curtail marine debris.

Clear Targets from Coastal Cleanup Data

food/drink



fishing



smoking



We have clear targets in terms of products and behaviors. You can see they can be generally grouped as smoking, food&drink, and fishing.

Within these groups targets could be further prioritized by abundance, volume, harm, or politically feasible.

2011:

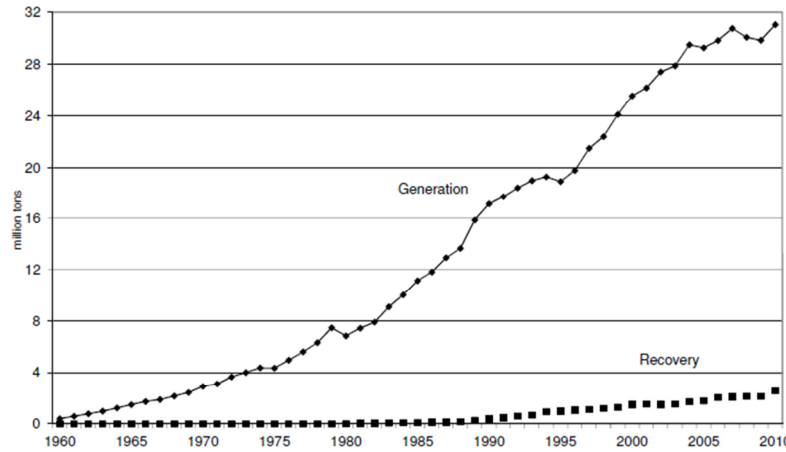


- 32 million tons of plastic waste were generated.
- 14 million tons of plastics containers and packaging, about 11 million tons of durable goods such as appliances, and almost 7 million tons as nondurable goods, such as plates and cups.
- Only 8 percent of the total plastic waste generated in 2011 was recovered for recycling.

Source: U.S. EPA

Generation Vastly Outpaces Recovery

Figure 9. Plastics generation and recovery, 1960 to 2010



U.S. EPA: Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2010

And it's no surprise, because plastic recovery has not kept pace with generation.

Who is Responsible?

All of Us ...



But in the U.S., since 1950,
Primarily the public & taxpayers
have been on the hook.

I encourage you to Google the history of Keep America Beautiful. The concept of "Litter" was an invented one.

Crying American Indian ad campaign from 1970: "People Start Pollution. People can stop it." What does that remind you of?

Encourage you to read "Mother Jones" May 2006 article on the origins of the anti-littering campaign, <http://www.motherjones.com/mojo/2006/05/origins-anti-litter-campaigns>.

Also watch Heather Rogers' [*Gone Tomorrow: The Hidden Life of Garbage*](#)

The Public Already Pays for Economic Impacts of Marine Litter

\$428,000,000 annually spent by California's cities and towns covers the cost of six activities related to reducing solid waste in waterways.

~ "Waste in our Waters", NRDC/Kier Report, 2013



We all have a part to play in reducing waste, but why is the
Why is the cost of dealing with all this waste all falling on the

Top 10 CA Cities with Highest Costs

| Ranking | Community | Annual Cost Per Year |
|---------|---------------|----------------------|
| #1 | Los Angeles | \$36.3 million |
| #2 | San Diego | \$14.1 million |
| #3 | Long Beach | \$12.9 million |
| #4 | San Jose | \$8.8 million |
| #5 | Oakland | \$8.3 million |
| #6 | Sacramento | \$2.8 million |
| #7 | Hayward | \$2.3 million |
| #8 | Merced | \$2.3 million |
| #9 | Redondo Beach | \$2.1 million |
| #10 | South Gate | \$1.7 million |

~ "Waste in our Waters", NRDC/Kier Report, 2013

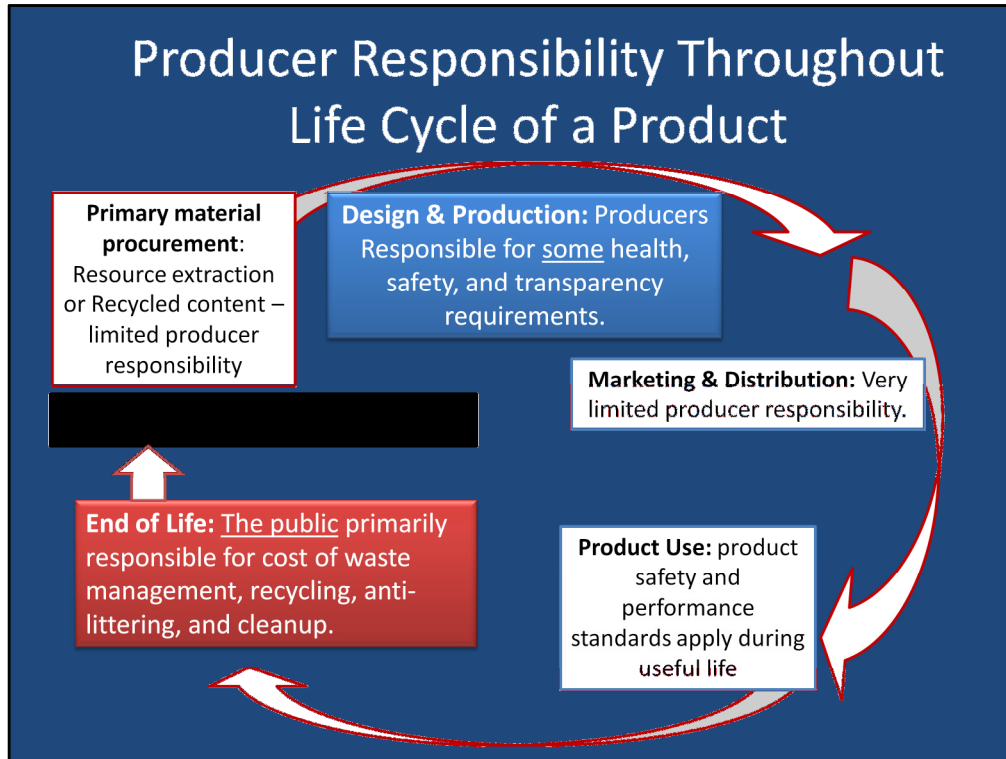
Los Angeles is ranked number one in "Waste in Our Waters", spending \$36.3 million per year to keep waste out of the water. Compare this to the [\\$216 million budget deficit](#) faced by the city, or the \$9.58 million [in the Mayor's budget for 2013-2014](#) to keep the number of police officers at current levels.

San Diego is ranked number two, spending \$14.1 million to keep waste out of the water, while this year, [a \\$20 million dollar budget deficit](#) was filled by rescinding plans to expand police and library services.

After Long Beach, in third place, spending \$12.9 million/year, San Jose is ranked fourth, with annual expenditures on street litter totaling \$8.8 million while experiencing a [projected \\$22.5 million budgetary shortfall](#) in 2013-14.

Oakland is ranked fifth, spending \$8.3 million at a time when the city's structural deficit is estimated at \$155 million.

So why can't we just not clean up this waste? NOT doing anything will cost us even more.

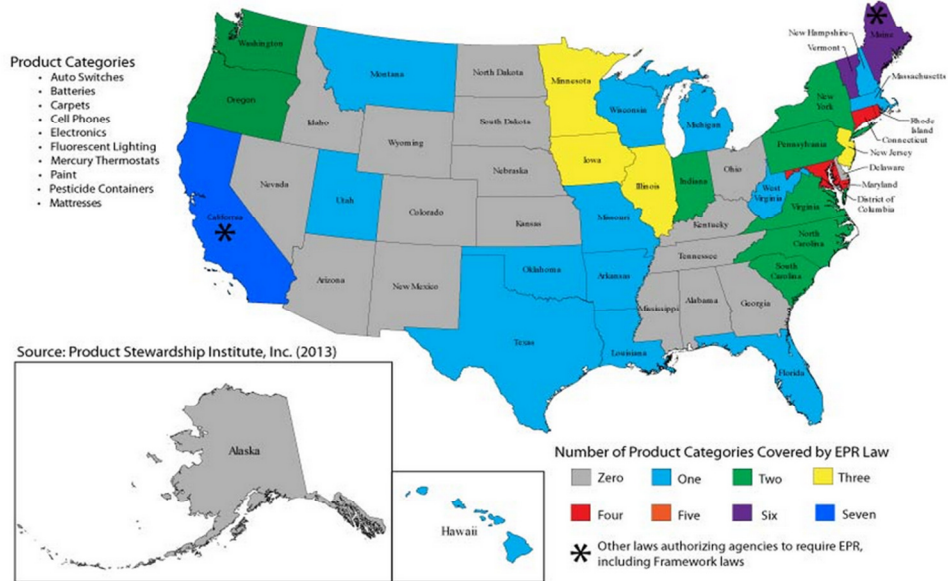



– often insufficient or have unintended consequences
E.g. Suffocation warn

- 1.
 2. Design & Production
 - Recycled content
 - Additives, e.g. BPA
 - Ban on certain products, e.g. bags, foam
 3. Product safety and performance standards during useful life
 4. End of life responsibility
- ing

Extended Producer Responsibility State Laws

as of October, 2013





The Evolution of EPR

Defining Extended Producer Responsibility: Is *physical* control necessary?

OECD definition, EPR characterized by:

- (1) The shifting of responsibility (physically **and/or** economically; fully or partially) upstream toward the producer and away from municipalities; and
- (2) The provision of incentives to producers to take into account environmental considerations when designing their products.

EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.

OECD *defines* EPR as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. An EPR policy is characterised by: (1) the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and (2) the provision of incentives to producers to take into account environmental considerations when designing their products. While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.



Enhancing California's Existing Patchwork

Local waste ordinances

- Zero Waste Ordinances
- Single-use Product Bans or Restrictions

State Laws & Policies

- CalRecycle Statewide Goal of 75% Diversion by 2020, (AB 341 Chesbro, 2011)
- Trash TMDLS & SWRCB Trash Amendments
 - Funding for implementation of the Trash Policy
 - Need better data – waste characterization at storm drains.
- Beverage Container Redemption Value (CRV)
- Learning from existing EPR/Product Take Back for various materials (Thermostats, Batteries, Paint, Carpet, Pharmaceuticals, Mattresses)

Challenges:

A complex proposition

Many agencies & Jurisdictions

Proposition 26

Opportunities:

Interagency coordination

New producer support?

Improved efficiency w/ data assets



EPR for Plastic Packaging in California

Support from producers needed to:

- 1) Expand what's working
 - Funding & support market drivers for enhanced recycling
 - Implementation of Trash TMDLs and Statewide Trash Policy
- 2) Connect the patchwork
 - More funding for cleanup and interventions
 - Improve data collection & waste characterization
- 3) Close Feedback Loop, influence industry trends & product design
 - Measurable targets
 - Recycled content requirements, waste reduction plans, tax incentives for Zero Waste

This is a program still very much under development, so we need input from stakeholders, local government, agencies, as to what is needed, and what pieces of conventional EPR can effectively be applied in this context.

Discuss AB 521 and the pros and cons of that approach.

What we're talking about may not even be appropriately called EPR, but rather Product Stewardship.

More Information & Inspiration

- <http://www.nrdc.org/oceans/plastic-ocean/>
- Watch Trashed: No Place for Waste,
<http://www.trashedfilm.com/>
- A powerful presentation of the problem:
<http://vimeo.com/25563376>
- Fun video on EPR for Plastic Packaging:
www.stopplasticpollution.org

Thank You.

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Photo, Clinton Bauder